County of San Diego

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February 25, 2003

Mr. John H. Robertus
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr. Robertus:

COMMENTS ON REVISED TENTATIVE ORDER NO. R9-2003-0001: GENERAL WASTE DISCHARGE REQUIREMENTS POST-CLOSURE MAINTENANCE OF INACTIVE NONHAZARDOUS WASTE LANDFILLS WITHIN THE SAN DIEGO REGION

The County of San Diego (County) has reviewed the Regional Water Quality Control Board's (RWQCB) Tentative Order No. R9-2003-0001 for several of the County landfills. Athough the County appreciates the significant work that the RWQCB has undertaken to update the Waste Discharge Requirements/Monitoring and Reporting Program for the sites, we have some significant comments. The attached document contains County comments (shown in red) and suggested alternate text (shown in blue).

If you have questions, please call me at (858) 874-4051.

Sincerely,

J. Candace Gibson

J. Candace Gibson, Hydrogeologist
Landfill Management

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COUNTY OF SAN DIEGO/GEOSYNTEC COMMENTS ON:

CALIFORNIA WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE ORDER NO. R9-2003-0001
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR POST-CLOSURE MAINTENANCE OF
INACTIVE NONHAZARDOUS WASTE LANDFILLS
WITHIN THE SAN DIEGO REGION

FINDINGS

4. Interim landfill covers must be designed and constructed to minimize percolation of precipitation through wastes [27CCR §20705]. A periodic assessment of the thickness of materials comprising the intermediate landfill cover systems is necessary to maintain the integrity of the waste containment system at inactive landfills.

Applicable post-closure maintenance requirements in 27 CCR [§21090(b) and (c)] do not mention this periodic assessment nor do 20695, 20700 and 20705 that address interim covers and performance standards for interim covers. What is the source of the requirement to measure thickness in the field? Please see more detailed comments under Monitoring and Reporting Program D.4.

The following alternate language is proposed:

4. Interim landfill covers must be designed and constructed to minimize percolation of precipitation through wastes [27CCR §20705]. A periodic assessment of ~~the thickness of materials comprising~~ the intermediate landfill cover systems is necessary to maintain the integrity of ~~the~~ waste containment systems at inactive landfills.

A. VOLUNTARY ENROLLMENT PERIOD

No comments.

B. PROHIBITIONS

No comments.

C. POST-CLOSURE MAINTENANCE SPECIFICATIONS

1. Within six months of adoption of this Order, or enrollment therein, the discharger shall submit to the RWQCB a current or updated cover maintenance plan. The cover maintenance plan shall include a description of how the discharger plans to comply

with the general maintenance requirements specified in 27CCR§21090(c)(1), §21090(c)(3), §21090(c)(4), and §21090(c)(5).

Is the cover maintenance plan the same as the site maintenance plan that was required under RWQCB Order No. 97-11?

The following additional language is proposed:

> Within six months of adoption of this Order, or enrollment therein, the discharger shall submit to the RWQCB a current or updated cover maintenance plan. The cover maintenance plan shall include a description of how the discharger plans to comply with the general maintenance requirements specified in 27CCR§21090(c)(1), §21090(c)(3), §21090(c)(4), and §21090(c)(5). This requirement may be waived if a current plan is on file from preceding Order 97-11.

1.g. A location map of all sediment control devices along the perimeter of the landfill, and at all operational internal inlets to the storm drain system.

Sediment control devices used in these areas such as gravel bags, wattles, silt fences undergo almost continual maintenance. The placement of these materials and the types of materials used are changed frequently rendering a map relatively useless unless upgraded on a continual basis. The site maintenance reports that are submitted as part of the semiannual reports contain pictures of many of the sediment control devices. Therefore, we recommend that this requirement be deleted.

3. The discharger shall comply with all applicable requirements of 27 CCR Chapter 3, Subchapter 5, Article 2.

Are "applicable requirements" the same as in Finding No. 2 [27 CCR §21090(b) and (c)]?

18. For inactive landfills with water supply or irrigation lines overlying waste, the discharger shall consider, but not be limited to the following:

    a. Flexible connector;
    b. Secondary containment of water supply and irrigation system components;
    c. Moisture sensors within secondary containment…

Please define 18.c – moisture sensors within secondary containment.

19. Periodically, a technical assessment shall be performed to determine the effectiveness of the landfill interim cover. The thickness of the interim landfill cover system (including the top deck, intermediate benches, and sideslopes) shall be measured at least every five years. The results of this assessment shall be submitted as required in Monitoring and Reporting Program No. R9-2003-0002.

Interim cover performance standards (27 CCR 20695, 20700, 20705) and closure/post-closure maintenance requirements in 27 CCR 21090 do not mention this periodic assessment. What is the source of the requirement to measure thickness in the field? Please see more detailed comments under Monitoring and Reporting Program D.4. Also, in the last sentence above MRP No. R9-2003-0001 should be referenced, not -0002.

The following alternate language is proposed:

19. Periodically, a technical assessment shall be performed to determine the effectiveness of the landfill interim cover. The ~~thickness of the~~ technical assessment of the interim landfill cover system (including the top deck, intermediate benches, and sideslopes) shall be ~~measured at least~~ performed every five years. Prior to performing the first technical assessment, the thickness of the landfill cover system on the top deck, intermediate benches, and sideslopes shall be determined to establish a baseline value for the periodic technical assessments. The results of the baseline study and the technical ~~this~~ assessments shall be submitted as required in Monitoring and Reporting Program No. R9-2003-0001.

D. MANAGEMENT OF TEMPORARY SOIL STOCKPILES

2. Inspection and Maintenance: The discharger shall regularly inspect and maintain temporary soil stockpiles established under this Order. Inspections shall be conducted at a frequency that will ensure the discharge of soils does not create conditions of pollution or nuisance. The discharger shall report on the disposition of all temporary soil stockpiles in the semi-annual monitoring reports submitted in compliance with Monitoring and Reporting Program No. R9-2003-0001.

Discharger is to report "disposition" of all temporary soil stockpiles. "Disposition" May not be the correct term here. Is the RWQCB asking for a report assessing the Condition of the stockpiles? "Disposition" needs to be clearly defined for reporting purposes.

3. Timely Reuse of Stockpiled Soils: The discharger shall use stockpiled soils to perform regular maintenance work and reuse soils discharged into temporary stockpiles in a timely manner. A schedule for the timely reuse of stockpiled soils shall be included in the workplan required by Reporting Requirement F.1. (b).

What does the RWQCB mean by a "timely manner" and why is it important that the stockpiles be used within a certain time period? There is no reason to require that the stockpiles are used within a certain period of time as long as they are adequately protected from erosion by BMPs. In addition, it is difficult to provide a schedule for use of these soils as the material is often used to make quick repairs on an as needed basis.

5. Source(s) of Stockpile Soils: The discharger shall provide the RWQCB information regarding the source(s) of all stockpiled soils. This information shall include the name and address of the supplier, address of the source location, and the volume of soil provided from that source. The required information shall be included in an appendix to the semi-annual monitoring reports submitted in compliance with Monitoring and Reporting Program No. R9-2003-0001. Soils stockpiled and used for purposes of maintaining the landfill cover system may not contain "wastes" (including leachate), [per27CCR,§21090(a)(3)] or "waste constituents" [as defined in 27 CCR §20164].

The requirement to provide source information is unduly burdensome. The County has a protocol in place for selecting appropriate fill material.

6. Cover: All temporary soil stockpiles shall be overlain by plastic sheeting (not less than 10 mils thick), to adequately control erosion by storm water, control fugitive dust, and other nuisances.

Plastic sheeting makes removal of soil from a stockpile very difficult and does not stand up well to sun and wind. The use of BMPs will control dust and erosion significantly better than will plastic sheeting. This requirement conflicts with the requirements of D.1.a. and should be deleted. At a minimum, it should be reworded.

The following alternate language is proposed:

> Cover: All temporary soil stockpiles shall be overlain by plastic sheeting (not less than 10 mils thick) or be protected by BMPs such as (but not limited to) tackified straw, bonded fiber matrix, wattles, and/or silt fence to adequately control erosion by storm water, control fugitive dust, and other nuisances.

E. PROVISIONS

5. FINANCIAL ASSURANCES FOR POST-CLOSURE AND CORRECTIVE ACTION

The discharger shall maintain adequate and acceptable assurances of financial responsibility throughout the post-closure monitoring and maintenance period. The discharger shall establish an irrevocable fund (or provide some other means), but with the RWQCB named as beneficiary.

Under what authority is the RWQCB asking for financial assurance? If the County is required to establish such a fund, we will need a twelve-month time period, instead of the six months specified in this Order, due to the number of sites and the administrative process.

10. ENTRY AND INSPECTION:

The discharger shall allow the RWQCB, or an authorized representative upon the presentation of credentials and other documents as may be required by law to:

a. Enter upon the discharger premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order;
d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location; and
e. To photograph or videotape any structures, facilities, activities, or other conditions that could result in adverse impacts to water quality and that are pertinent to compliance with this Order.

Modify regarding site entry for sampling or monitoring by the Regional Board or their authorized representative. Allow the County 24-hour notice so that they can observe and provide assistance during monitoring.

For Water Sampling:

The majority of the groundwater monitoring wells are fitted with specialized, dedicated sampling equipment. In addition, four are connected to corrective action extraction systems. As the RWQCB staff is aware, sampling of monitoring wells requires specific procedures for sample collection, quality assurance/quality control, and decontamination. It is imperative that the RWQCB give the County a minimum of 24 hours notice so that a County representative may observe the sampling event. The County would prefer that the RWQCB request that the County obtain the sample and turn it over to the RWQCB. Having another party collect samples from County wells without the County's knowledge could impact the integrity of County samples and expose certain liabilities to the County or other parties involved.

For Landfill Gas Sampling:

The RWQCB should also notify the County prior to attempting to collect any landfill gas samples from landfill gas extraction wells.

For Soil Sampling/Top Deck Cover Thickness:

The RWQCB should notify the County prior to attempting to collect any soil samples or assessing the top deck cover thickness. RWQCB staff should be aware of the need to restore cover soil to its original condition following any

penetration, alteration, or movement of cover soil for the purposes of sampling or monitoring.

F. REPORTING REQUIREMENTS

1.b. Workplan

The discharger shall submit a workplan at least 30 days prior to any maintenance activities that could alter existing surface drainage patterns or change existing slope configurations. These activities may include, but not be limited to, significant grading activities, the importation of fill material, the design and installation of soil borings, ground water monitoring wells and other devices for site investigation purposes.

Because the acquisition of soil is usually on a first-come/first-served basis, requiring the County to wait 30 days to import fill material will seriously impede the County's ability to acquire soil for maintenance purposes. When fill material becomes available, it must be imported as soon as possible. The County requests that this particular notification requirement be deleted. Or, at most, the County could be required to notify the RWQCB verbally within 24 hours of fill importation.

6. SLOPE FAILURE

The RWQCB shall be notified immediately of any slope failure occurring in a waste management unit. The discharger shall promptly repair any slope failure that threatens the integrity of the containment systems. A written summary of actions that were implemented to correct any slope failures shall be prepared and submitted with the next monitoring report.

The term "notified immediately" is vague and needs to be defined.

The following alternate language is proposed:

The RWQCB shall be notified ~~immediately~~ within seven days of any slope failure occurring in a waste management unit. The discharger shall promptly repair any slope failure that threatens the integrity of the containment systems. A written summary of actions that were implemented to correct any slope failures shall be prepared and submitted with the next monitoring report.

10.a.3. REPORT DESIGNATION

For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

The following alternate language is proposed:

For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official, or designee.

COUNTY OF SAN DIEGO/GEOSYNTEC COMMENTS ON:

CALIFORNIA WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2003-0001
FOR POST-CLOSURE MAINTENANCE OF
INACTIVE NONHAZARDOUS WASTE LANDFILLS
WITHIN THE SAN DIEGO REGION

A. MONITORING PROVISIONS

3. The discharger shall report all instances of noncompliance not reported under Reporting Requirement E.5 of Order R9-2003-0001 at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirement E.5 of Order R9-2003-0001.

Includes an incorrect reference to Reporting Requirement E.5 of Order R9-2003-0001; should be F.5.

8. The monitoring reports shall be signed by an authorized person as required by Reporting Requirement E.9 of Order R9-2003-0001.

Includes an incorrect reference to Reporting Requirement E.9 of Order R9-2003-0001; should be F.10.

B. SITE MAINTENANCE

No comments.

C. GROUND WATER DETECTION MONITORING PROGRAM

No comments.

D. REPORTS TO BE FILED WITH THE BOARD

1.b. A statement certifying that, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct. This statement shall be signed by an individual that meets the requirements contained in Reporting Requirement E.9 of Order R9-2003-0001.

Includes an incorrect reference to E.9 of Order R9-2003-0001; should be F.10.

3.e. A topographic map at appropriate scale, showing the direction of ground water flow at the landfill site.

3.f. Annually, by April 30, a copy of its Storm Water Pollution Prevention Plan, or as updated shall be submitted to the RWQCB.

e) should be changed to d); and f) should be changed to e)

4. Interim Landfill Cover Assessment

Every four years beginning in 2004, the discharger shall measure the existing thickness of the interim landfill cover system. Field measurement shall be completed during the timeframe from May-June of the reporting year. A technical report shall be submitted to the RWQCB containing the results from the landfill cover survey along with a technical assessment of the effectiveness of the existing interim landfill cover…

This requirement conflicts with Section C.19 of the WDR that requires an interim cover assessment "...every five years." Why is a four year schedule specified here? The County cannot complete the work for all of these sites in 2004. Instead, the first required assessment should be in 2008.

Applicable post-closure maintenance requirements in 27 CCR [§21090(b) and (c)] do not mention this periodic assessment nor do 20695, 20700 and 20705 that address interim covers and performance standards for interim covers. What is the source of the requirement to perform this cover thickness assessment?

What is the required standard? Title 27 CCR requires a cover thickness of 12 inches. However, in a later section of this Order, the RWQCB requires that drilling be completed to a depth of 24 inches? Is the RWQCB suggesting that the cover thickness must be a minimum of 24 inches and, if so, under what authority is the RWQCB making this requirement? What about areas that are covered with asphalt or concrete? Will the cover thickness assessment be required in these areas as well?.

The May-June timeframe is insufficient to complete the field measurement. This time period contains only approximately 42 working days to perform the assessments at all of the sites and only 30 calendar days to prepare the associated reports. The County proposes that the field measurements should be permitted within a longer time period (e.g. January – June).

At a minimum (and as will be required by this Order), the County currently conducts quarterly inspections of each site to evaluate the current conditions. If potential problems or existing deficiencies are observed, they are recorded and the site is scheduled for repair/maintenance work. The County maintains adequate cover thickness to prevent

release of landfill gas, infiltration of water, and exposure of waste material. In addition, the cover is protected with BMPs to prevent erosion.

It is unclear how the RWQCB intends to use the information presented in the interim cover assessment report. The County is concerned about the economic impact of performing these assessments and the import of large volumes of soil to maintain a specific cover thickness that is greater than the regulatory requirements, even though the existing cover is shown to be providing adequate protection.

4.d. A contour map of the field sampling results of the observed cover thickness. The contour map shall be prepared at an appropriate scale to clearly illustrate the configuration of the top deck, intermediate benches, and side-slopes of the WMUs and sample locations used to evaluate the thickness of the landfill cover system. Sampling of the landfill cover system shall include the top deck, intermediate benches, and side-slopes of the waste management unit(s). The observed thickness of the cover system at each sample point shall be clearly labeled on the plot plan.

What is the purpose of a contour map? It is known and expected that the surface elevation will change as a result of decomposition. Contour maps assume a linear gradation. Unless sample points are consistent, it will be difficult to generate a meaningful map of the cover thickness.

Delete last two sentences of paragraph 4(d); repeated from 4(c).

4.e. A table of results from field measurements of the landfill cover system. The table of results shall include the elevation of the landfill cover at the sampling point, the depth of the landfill cover system at the sampling point. Measurements of the landfill cover system must be made to at least 24-inches below grade.

What is the purpose of determining elevation for each sample point? Elevation measurements do not provide information on landfill cover thickness.

Why is the RWQCB requiring that each boring be drilled to a depth of at least 24 inches? If there is no specific standard referenced in the order and 27 CCR indicates a standard of 12 inches, what is the purpose of drilling to 24 inches? Is the RWQCB suggesting that the cover thickness must be a minimum of 24 inches and, if so, under what authority is the RWQCB making this requirement? What about areas that are covered with asphalt or concrete? Will the cover thickness assessment be required in these areas as well.

For section D.4 of Tentative MRP R9-2003-0001, the following language is proposed as an insert section that will be added before the "Interim Landfill Cover Assessment Section," which will become section D.5.:

D.4. Landfill Cover Baseline Study

Beginning in 2008, the discharger shall measure the existing thickness to establish a baseline value (Baseline Study). The values established in the Baseline Study shall be compared with data collected during the Interim Landfill Cover Assessment to evaluate cover conditions. Field measurements shall be completed during the timeframe from January-June of the reporting year. A technical report shall be submitted to the RWQCB containing the results from the Baseline Study along with a technical assessment of the effectiveness of the existing interim landfill cover. The Baseline Study of the interim landfill cover system shall include the following minimum information:

a. A clearly written description of the rationale and technical basis for the sampling protocol and methods used to assess the performance of the landfill cover system.

b. Clearly written discussions of field methods used to assess the thickness of the landfill cover system.

c. A plot plan, prepared at an appropriate scale, that can be used to clearly illustrate the topographic elevations of the top deck, intermediate benches, and side-slopes of the waste management unit(s) (WMUs). A ground survey shall be performed by a licensed land surveyor to obtain current elevations of the top deck, intermediate benches, and side-slopes of the WMUs, the sampling grid, and sampling locations. Sampling of the landfill cover system shall include measurements made on the top deck, intermediate benches, and sideslopes of the WMUs. The observed thickness of the cover system at each sample point shall be clearly labeled on the plot plan.

d. A table of results from field measurements of the landfill cover System. The table of results shall include the elevation of the landfill cover at the sampling point, the depth of the landfill cover at the sampling point.

e. A clearly written evaluation of: the results from measuring the thickness of the landfill cover system, an assessment of the effectiveness of the existing cover at minimizing percolation of precipitation and conveying storm water off the landfill cover system, recommendations for required maintenance of the landfill cover

system, and a proposed schedule for completing the recommended maintenance work.

D.5. Interim Landfill Cover Assessment

Every ~~four~~ five years beginning in 2013, the discharger shall ~~measure the existing thickness~~ evaluate the effectiveness of the interim landfill cover system. Field activities associated ~~measurements~~ with the evaluation shall be completed during the timeframe from January-June of the reporting year. A technical report shall be submitted to the RWQCB containing the results from the landfill cover ~~survey~~ evaluation along with a technical assessment of the effectiveness of the existing interim landfill cover. The assessment of the interim landfill cover system shall include the following minimum information:

a. A clearly written description of the rationale and technical basis for the ~~sampling~~ protocol and methods used to assess the ~~thickness~~ effectiveness of the landfill cover system.

b. Clearly written discussions of field methods used to assess the ~~thickness~~ effectiveness of the landfill cover system. ~~The discussions should include the method(s) used to measure the cover thickness, criteria for terminating the depth of measurement at each sample point, and methods used to backfill sampling points.~~

c. A plot plan, prepared at an appropriate scale, that can be used to clearly illustrate the topographic elevations of the top deck, intermediate benches, and side-slopes of the waste management unit(s) (WMUs). A ground survey shall be performed by a licensed land surveyor to obtain current elevations of the top deck, intermediate benches, and side-slopes of the WMUs. ~~, the sampling grid, and sample locations used to evaluate the thickness of the landfill cover system. Sampling of the landfill cover system shall include thickness measurements made on the top deck, intermediate benches, and side-slopes of the WMUs. The observed thickness of the cover system at each sample point shall be clearly labeled on the plot plan.~~

d. ~~A~~The results of the five-yearly land surveys shall be used to compare the differences in elevations between the previous and current elevations of the top deck, intermediate benches, and side-slopes of the WMUs, and shall be used to create a contour map showing the current elevations, and an isopach map showing the interim ~~of the field sampling results of the observed~~ cover thickness. The contour map and isopach map of the interim cover thickness shall be prepared at an appropriate scale to clearly illustrate the configuration of the top deck, intermediate benches, and side-slopes of the WMUs ~~and sample locations used to evaluate the thickness of the landfill cover system.~~

~~Sampling of the landfill cover system shall include the top deck, intermediate benches, and side slopes of the waste management unit(s). The observed thickness of the cover system at each sample point shall be clearly labeled on the plot plan.~~

e. ~~A table of results from field measurements of the landfill cover system. The table of results shall include the elevation of the landfill cover at the sampling point, the depth of the landfill cover at the sampling point. Measurements of the landfill cover system must be made to at least 24 inches below grade.~~

f. A clearly written evaluation of: the results ~~from measuring the thickness~~ of the landfill cover system evaluation, an assessment of the effectiveness of the existing cover at minimizing percolation of precipitation and conveying storm water off the landfill cover system, recommendations for required maintenance of the landfill cover system, and a proposed schedule for completing the recommended maintenance work.

E. REPORTING

Change heading to "Reporting Schedule" and change the reporting period for the intermediate cover assessment to every five years.